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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/849,170	05/04/2001	Lyndsay Williams	2730	9681

7590 04/01/2004
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EXAMINER

NGUYEN, JENNIFER T

ART UNIT PAPER NUMBER

2674

DATE MAILED: 04/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/849,170

Applicant(s)

WILLIAMS ET AL.

Examiner

Jennifer T Nguyen

Art Unit

2674

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 May 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 10.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. This Office Action is responsive to Amendment filed on 01/08/2004.
2. The indicated allowability of claims 9-11 and 18-20 are withdrawn in view of the newly discovered reference(s) to Wanatabe et al. (Japan Pub. No. 07-261906). Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over O'Connor et al. (U.S. Patent No. 6,188,392) in view of Watanabe et al. (Japan Pub. No.: 07-261906).

Regarding claim 1, referring to Figs. 1 and 2, O'Connor teaches a computer system, comprising: a writing instrument (100) that generates movement information including acceleration information from a user's handwriting (see abstract, col. 5, lines 13-67, col. 6, lines 1-22).

O'Connor differs from claim 1 in that he does not specifically teach and a conversion component that utilizes the acceleration information to generate line thickness information. However, referring to Figs. 1-5, Watanabe teaches a conversion component (6) that utilizes the acceleration information to generate line thickness information (see abstract, paragraphs [0007]-[0018]). Therefore, it would have been obvious to one of ordinary skill in the art at the time the conversion component that utilizes the acceleration information to generate line thickness

Art Unit: 2674

information as taught by Watanabe in the system of O'Connor in order to provide high resolution display of calligraphy, or for font generation of some characters.

Regarding claim 2, O'Connor further teaches the writing instrument (100) is a pen (col. 3, lines 50-51).

Regarding claim 3, O'Connor further teaches the writing instrument (100) comprises an accelerometer (112, 113) configured to generate the acceleration information (col. 5, lines 13-28).

Regarding claim 4, O'Connor further teaches the accelerometer (112, 113) generates analog movement information, and wherein the writing instrument comprises an analog-to-digital converter (116) for converting the analog movement information to digital data (col. 5, lines 29-45).

Regarding claims 5 and 14, the combination of O'Connor and Watanabe teaches the conversion component (6) comprising transmitting the digital data to the conversion component (Figs. 1 and 3 of Watanabe, paragraphs [0007]-[0018]). Although the combination of O'Connor and Watanabe fails to teach the conversion component is located remote from the writing instrument. However, it would have been obvious to obtain the conversion component is located remote from the writing instrument in order to provide a lightweight writing instrument.

Regarding claims 6 and 15, O'Connor further teaches the digital data is transmitted via a wireless connection (col. 6, lines 3-22).

Regarding claims 7 and 16, O'Connor further teaches the digital data is transmitted via a hardwired connection (col. 6, lines 23-39).

Art Unit: 2674

Regarding claims 8 and 17, O'Connor further teaches the accelerometer (112, 113) is configured to generate tilt information (col. 4, lines 26-40).

Regarding claims 12 and 21, the combination of O'Connor and Watanabe teaches the conversion component (6) (Figs. 1 and 3 of Watanabe) generates thickness information based upon wavelengths of the movement information (see abstract, paragraphs [0007]-[0018]).

Regarding claims 13 and 22, the combination of O'Connor and Watanabe teaches the thickness information increases a thickness component as the wavelengths increase (Fig. 4 of Watanabe, see abstract, paragraphs [0007]-[0018]).

Regarding claims 9 and 18, referring to Figs. 1 and 2, O'Connor teaches a computer system, comprising: a writing instrument (100) that generates movement information including acceleration information from a user's handwriting (see abstract, col. 5, lines 13-67, col. 6, lines 1-22).

O'Connor differs from claims 9 and 18 in that he does not specifically teach and a conversion component that utilizes the acceleration information to generate line thickness information based upon spacing of plots in a map of a plot of the movement information. However, referring to Figs. 1-5, Watanabe teaches a conversion component (6) that utilizes the acceleration information to generate line thickness information based upon spacing of plots in a map of a plot of the movement information (see abstract, paragraphs [0007]-[0018]). Therefore, it would have been obvious to one of ordinary skill in the art at the time the conversion component that utilizes the acceleration information to generate line thickness information as taught by Watanabe in the system of O'Connor in order to provide high resolution display of calligraphy, or for font generation of some characters.

Art Unit: 2674

Regarding claims 10-11 and 19-20, the combination of O'Connor and Watanabe teaches the thickness information is based upon the samples/unit distance of the plots (Fig. 4, of Watanabe, see abstract, and paragraphs [0007]-[0018]).

5. Applicant's arguments with respect to claims 1-22 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Jennifer T. Nguyen** whose telephone number is **703-305-3225**. The examiner can normally be reached on Mon-Fri from 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Richard A Hjerpe** can be reach at **703-305-4709**.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, DC. 20231

Or faxed to: 703-872-9306 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, sixth-floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is 703-306-0377.

JNguyen
03/30/2004